

ADAMTS-18 (L-14): sc-67706

BACKGROUND

ADAMTS (a disintegrin and metalloproteinase domain with Thrombospondin type-1 modules) is a family of zinc-dependent proteases that are implicated in a variety of normal and pathological conditions, including arthritis and cancer. ADAMTS protein family members contain an amino-terminal propeptide domain, a metalloproteinase domain, a disintegrin-like domain and a carboxy-terminus that contains a varying number of thrombospondin 1 (TSP 1) motifs. ADAMTS genes are primarily expressed in fetal tissues, including the lung, kidney and liver. ADAMTS-18 is a secreted protein that is also expressed in adult brain, endothelium, prostate and submaxillary gland. ADAMTS-18 has two known splice variants and it is structurally most similar to ADAMTS-16. ADAMTS-18 is downregulated in carcinoma cell lines by methylation of its promoter. Forced expression of ADAMTS-18 in carcinoma cells can lead to significant inhibition of cell growth, suggesting that it plays a significant role as a tumor suppressor.

REFERENCES

1. Tang, B.L., et al. 1999. ADAMTS: a novel family of proteases with an ADAM protease domain and Thrombospondin 1 repeats. *FEBS Lett.* 445: 223-225.
2. Tang, B.L. 2001. ADAMTS: a novel family of extracellular matrix proteases. *Int. J. Biochem. Cell Biol.* 33: 33-44.
3. Cal, S., et al. 2002. Cloning, expression analysis, and structural characterization of seven novel human ADAMTSs, a family of metalloproteinases with disintegrin and Thrombospondin 1 domains. *Gene* 283: 49-62.
4. Nicholson, A.C., et al. 2005. Functional evolution of ADAMTS genes: evidence from analyses of phylogeny and gene organization. *BMC Evol. Biol.* 5: 11.
5. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.

CHROMOSOMAL LOCATION

Genetic locus: ADAMTS18 (human) mapping to 16q23.1; Adamts18 (mouse) mapping to 8 E1.

SOURCE

ADAMTS-18 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADAMTS-18 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-67706 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

ADAMTS-18 (L-14) is recommended for detection of ADAMTS-18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ADAMTS-18 (L-14) is also recommended for detection of ADAMTS-18 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ADAMTS-18 siRNA (h): sc-61954, ADAMTS-18 siRNA (m): sc-61955, ADAMTS-18 shRNA Plasmid (h): sc-61954-SH, ADAMTS-18 shRNA Plasmid (m): sc-61955-SH, ADAMTS-18 shRNA (h) Lentiviral Particles: sc-61954-V and ADAMTS-18 shRNA (m) Lentiviral Particles: sc-61955-V.

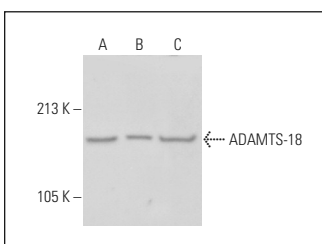
Molecular Weight of ADAMTS-18: 135 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, HUV-EC-C whole cell lysate: sc-364180 or U-698-M whole cell lysate: sc-364799.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ADAMTS-18 (L-14): sc-67706. Western blot analysis of ADAMTS-18 expression in HUV-EC-C (A), MDA-MB-231 (B) and U-698-M (C) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.